CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 94-012

AMENDING ORDER NO. 90-042, REVISED SITE CLEANUP REQUIREMENTS FOR:

AVANTEK, INC.
3175 BOWERS AVENUE FACILITY
SANTA CLARA, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board), finds that:

1. Avantek, Inc., hereinafter called the Discharger, owns and operates a research, development, and production facility for small microwave electronic products located at 3175 Bowers Avenue in Santa Clara. Avantek, Inc. is a wholly-owned subsidiary of Hewlett-Packard.

2. The Avantek 3175 Bowers Avenue facility is not presently enrolled in any voluntary program for cost recovery offered by this Board.

3. Section 13304 of the California Water Code empowers the Regional Water Quality Control Board to take necessary action to require the cleanup and abatement of waste discharges such as have occurred at the 3175 Bowers Avenue site, and to seek reimbursement for all reasonable costs actually incurred by the Regional Board in investigating unauthorized discharges of waste and in overseeing cleanup of such waste.

4. It is the intent of this Board to seek reimbursement under Section 13304 of the California Water Code.

5. This action is an Order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.

6. The Board has notified the Discharger and interested agencies and persons of its intent under the California Water Code to amend Site Cleanup Requirements and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.

7. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to provisions of the California Water Code and regulations adopted thereunder, that the Discharger shall comply with the following:

1. New PROVISION 17 is added, to read as follows:

> Pursuant to Water Code Section 13304 (c), the discharger is hereby notified that the Board is entitled to and may seek reimbursement for all reasonable staff oversight costs incurred related to cleanup of wastes at the 3175 Bowers Avenue site in Santa Clara, abating the effects thereof, or taking other remedial action.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 18, 1994.

for Steven R. Ritchie
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

ORDER NO. 94-013

AMENDMENT TO ORDER NUMBER 91-133
SITE CLEANUP REQUIREMENTS FOR:

CERRO METAL PRODUCTS COMPANY
6707 MOWRY AVENUE
NEWARK, ALAMEDA COUNTY

The California Regional Water Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. SITE DESCRIPTION. Cerro Metal Products Company (hereinafter called the Discharger) operated a brass manufacturing plant at 6707 Mowry Avenue in Newark, California from 1960 to 1986. Chemicals handled at this 40 acre site included sulfuric, muriatic, chromic and nitric acids, sulfuric dioxide gas, truco solvent (containing trichloroethylene and dichloromethane), Dyna Sprex Powder (containing sodium hydroxide), liquid caustic, 1,1,1-trichloroethane, oil and diesel fuel. The Discharger has identified the following areas of environmental concern:

   - unlined sludge settling ponds
   - oil/water separator
   - neutralization/acid storage tanks
   - treated wastewater drainage ditch
   - evaporation ponds
   - underground diesel tank

2. STATUS OF INVESTIGATIONS. Investigative activities completed to date include collection of numerous soil samples from soil borings and soil excavations from nine (9) areas on site and collection of numerous groundwater samples from on-site monitoring wells. Shallow Zone hydrogeology was assessed based on soil boring data and through the performance of aquifer tests. Remedial activities todate included closure of two unlined sludge settling ponds; removal of an underground diesel storage tank; excavation and off-site disposal of about 8,000 cubic yard soils from nine areas on site. In addition, interim shallow zone groundwater remediation system is underway and is scheduled to start groundwater extraction shortly.

3. COMPLIANCE WITH ORDER 91-133. The Discharger has complied with all the time tasks outlined in Provision C.1.a to C.1.d, and C.1.f. The Discharger is

currently in partial compliance with Provision C.1.e. In consideration of factors beyond the Discharger's control and the applicable water quality objectives to groundwater cleanup contained in the Groundwater Basin Plan Amendment, I recommend that some amendments to the requirements of the remaining Provisions are appropriate.

Specification 5 defines the final cleanup goals that the Discharger shall meet for groundwater cleanup. Because of the cost/practicability to remediate groundwater to background levels, the Discharger is allowed to develop and propose alternative site-specific groundwater cleanup levels and/or alternate compliance points based upon the evaluation of the interim remediation system performance and a health-based risk analysis.

Provision C.1.e requires the Discharger to submit a technical report documenting the implementation of the preferred soil and groundwater remediation alternative selected in Task C.1.c. The Discharger found that the extent of the soil pollution and its proximity to the groundwater pollution necessitated that all soil remediation activities be completed prior to initiating the groundwater remediation phase. In an attempt to comply with the specification requirement of Provision B.4, the Discharger demonstrated that it would not be cost-effective to clean up source area soils to background concentrations for metals and petroleum products. The Discharger then worked with Alameda County Environmental Health Department and Board staff to develop a methodology to derive soil cleanup goals based on both human health risk and water quality impact assessment. In connection with this, a post-cleanup confirmatory sampling plan was also compiled with inputs from County and Board staff. The method (see Appendix B) to establish the alternative soil cleanup goals is to evaluate leachate potentials of the chemicals of concern which have soil concentrations close to those obtained by health-based risk assessments. During leachability test runs, both citrus acid and distilled water were used to extract the soil pollutants for analyses. Following soil cleanup goals were acceptable to the Executive Officer:

.Total Lead	-100 mg/kg, leachability based
.Copper	-800 mg/kg, health risk based
.TPH as Diesel	-80 mg/kg, health risk based
.Oil and Grease	-100 mg/kg, health risk based

Progress reports on bi-weekly and monthly bases were submitted by the Discharger to the Board staff to keep the latter informed of the soil remediation progress. Implementation of interim shallow zone remediation is underway. Interim groundwater remediation measures consist of pump and treat technology. The system will be ready for groundwater remediation if the necessary permits from local agencies are received by the Discharger.

Provision C.1.g requires the Discharger to submit a technical report acceptable

to the Executive Officer documenting the results of shallow zone characterization and the evaluation of the effectiveness of the interim soil and groundwater remediation. The report shall also identify and discuss the final cleanup alternatives, their feasibility, and their cost and benefits in relation to beneficial use protection, and recommend the preferred cleanup alternative and a time schedule for implementation of the cleanup measures.

Provision C.1.h requires the Discharger to submit a technical report documenting the implementation of the preferred final remediation alternative(s) as selected in Provision C.1.f and C.1.g. The report shall be acceptable to the Executive Officer.

4. SCOPE OF THIS ORDER - This Order proposes to amend due dates and some specification and task requirements specified under Board Order No. 91-133 because of various delays related primarily to the soil remediation activities and the approval of the Board's Basin Plan amendments for groundwater cleanup objectives. These facts support the changes specified in this Order. All other Prohibitions, Specifications and Provisions of Order No. 91-133 shall remain in force with amended due dates and requirements as specified in the revised provisions.

5. The Board, in a public meeting, heard and considered all comments pertaining the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the Discharger shall comply with the following:

B. AMENDED SPECIFICATIONS

5. CLEANUP GOALS - GROUNDWATER: Final cleanup goals for polluted groundwater attributable to the Discharger, including sources of drinking water, on-site and off-site, shall be background water quality if feasible, in accordance with the State Water Resources Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California". If background water quality goals are not attainable, as determined by data submitted in annual reports, alternative cleanup goals and/or compliance points and risk management measures proposed by the Discharger shall be reviewed by the Board. Alternate cleanup goals shall reduce the mobility, toxicity, and volume of pollutants. These goals may include applicable standards, such as Maximum Contaminant Levels, and shall be based on an evaluation of the cost, effectiveness and a site-specific health-based assessment to evaluate the residual risk to human health and environment associated with the remaining chemicals in groundwater.

C. AMENDED PROVISIONS

1. The Discharger shall comply with Provisions C.1.e, C.1.g, C.1.h and C.1.i which are amended as follows:

TASKS AND COMPLETION DATES

e. Due Date: June 1, 1994

TASK: IMPLEMENTATION OF INTERIM REMEDIAL ALTERNATIVES.
Requirements shall be the same as specified in the original Order No. 91-133

g. Due Date: 90 days after the preferred interim shallow zone remedial action has been implemented

TASK: EVALUATION OF INTERIM SHALLOW ZONE REMEDIAL ACTION.
Submit a technical report acceptable to the Executive Officer documenting a 90-day evaluation of the shallow zone groundwater remediation system in terms of hydrogeologic parameters, capture zone and hydraulic influence analyses, optimum extraction rate and operation modes, chemical removal rates, contaminant fate and transport, and any suggested improvement methods or modifications to the system to optimize the extraction and treatment effectiveness.

h. Due Date: January 31, 1995

TASK: FINAL SHALLOW ZONE CHARACTERIZATION AND FEASIBILITY STUDY.
Requirements shall be the same as specified in the original Order No. 91-133.

i. Due Date: January 31, 1996

TASK: IMPLEMENTATION OF FINAL REMEDIAL ALTERNATIVES.
Revision: Submit a technical report acceptable to the Executive Officer documenting implementation of the groundwater extraction and treatment alternative selected for the site. The report shall summarize the design and operation of the treatment system, and provide a cumulative summary of groundwater sampling data, extraction volumes, and chemical mass removal estimates. Should the Discharger be able to demonstrate that the ongoing groundwater remediation system results in steady groundwater concentrations but is not cost-effective remedial technology to meet background levels, or any applicable cleanup goals such as drinking water Maximum Contaminant Levels (MCLs), etc., the Discharger may perform a site specific health-based risk assessment to evaluate the residual risk posed to human health and environment by any chemicals remaining in groundwater. Alternative cleanup levels and /or

compliance points and residual risk management measures proposed by the Discharger shall be reviewed by the Board. Should neither steady groundwater concentrations nor MCLs are reached by the referenced due date, the Discharger may continue to operate the groundwater extraction and treatment system until either condition referred hereto is met.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the california Regional Water Quality Control Board, San Francisco Bay Region, on January 19, 1994.

for
Steven R. Ritchie
Executive Officer